



## Development of critical attitude in fundamentals of professional care discipline: A case study



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### SUMMARY

This is a qualitative case study to identify the contributions of a critical pedagogical technique in developing critical attitudes of graduating nursing students in Brazil. Fourteen students participated in this study. Data were collected from March to August 2010 using triangulation of non-participant observation, interview and document analysis. The collected data were transcribed to Word documents, which were subsequently imported into ATLAS.ti, version 6.2, for organisation and qualitative data analysis. The analysis was based on the work of Minayo (2010). The following three thematic analysis units were constructed: feeling free – seeking the liberty to learn to admire, admiring by curiosity and reflecting about the admired object. The results of the thematic categories reveal that the students understand that they are free to have an active role in their education, and the teacher facilitates this process; thus, the students have a *raison d'être*, or reason for being, free. Feeling free, the student can exercise their curiosity when facing the given situations and topics, which challenges them to make decisions based on their awareness of the world.

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### Introduction

Critical thinking is not a concept that can be reproduced, copied, internalised or memorised: it is created by action. This act includes attitude, knowledge, context, relationships, thought, freedom, observations, curiosity, creation, re-creation and communication, making it a complex act. Critical thinking is not developed automatically, mechanically or technically, and it involves constant personal effort. This effort begins in preschool and intensifies throughout formal education. The effort does not end (Freire, 2009, 2011a). Therefore, the more a student uses critical thought in their reality, the more he or she will insert himself or herself into that reality through his or her criticality (Freire, 2011b).

Paulo Freire, a Brazilian educator who is involved in the Critical Pedagogy educational philosophy, had stated that a student must be conscious to be critical. Being conscious goes beyond simply knowing or having knowledge: it requires understanding the reason why one does or knows, thereby allowing the conscious subject to change reality. There is no point to education if it does not strive to change reality, and

the reality of the student, be it in education or health or any other work context. To this author, the development of a critical attitude stems from the student's own action, mediated by the professor, who acts as the guide to help one think correctly and not as a communicator of knowledge. Exercising criticality requires specific conditions to be present that allow the student to act accordingly. Among these conditions is the adoption of pedagogical techniques that are based on the freedom of the student (Freire, 2011c). Educating with freedom means that while teaching/learning, both the teacher and the student learn, abandoning the dichotomy of the teacher teaches and the student learns. From this viewpoint of education, both teacher and student are different cognitive subjects and critical agents in the act of gaining knowledge (Freire, 2011c). Therefore, students no longer represent a vessel for depositing knowledge, but they are their own agents and they are responsible for their own learning. To be a learner and not an object for receiving knowledge is the ontological vocation of man, which implies “being more” (Freire, 2001).

With the possibility of “being more”, the student has the freedom to observe reality and admire it because of the curiosity that it awakens in the student. Thinking about what they observe and making a decision on how to act based on reality lead to a critical attitude. This can be developed through educational practices that seek this goal. To develop this attitude, it is essential that schools create strategies that allow students to learn it. Learning to be critical involves relearning how to learn: studying, reading, writing, communicating, relating and researching, as well as being ethical, political, responsible, loving, humble, and independent and to make decisions and be curious (Freire, 2008, 2011a, 2011b, 2011c).

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Once they know that they are capable of acting, the necessary conditions are present for the result of this conscious act to become critical reflection and problem-posing (Freire, 2011c). Problem-posing means to know oneself in the world and with the world and to be challenged by it. As the challenge increases, the response to it also strengthens as the student is part of the challenge and not outside of it. Because students accept this challenge by problem-posing with each other “in all its totality is not something rigid, the resulting understanding gradually becomes critical [...]” (Freire, 2011c, p.40).

According to the National Curriculum Requirements for Nursing Education in Brazil, critical frameworks should be constructed that account for such concepts as autonomy, the ability to make decisions, problem-solving, the ability to communicate and interpersonal relationships (Brasil, 2001; Silva and Pedro, 2010). Brazilian scientific studies of nursing education have shown that there are still few graduate nursing courses that adhere to the national curriculum for the development of this critical profile; there is only 72% compliance, which is low and reveals the need for these courses to make the requisite changes (Neto et al., 2007). However, the handful of schools with pedagogical plans that seek to incorporate the national curriculum goals and requirements strive to plan and carry out projects that develop teaching and learning practices that successfully form or develop these attitudes in their students.

Within a national and international context, one of the major teaching methods highlighted in the literature for developing critical attitudes and critical thinking is the use of information technology (IT) to aid simulation. This simulation is observed both in care-giving environments, such as laboratories equipped with hi-tech equipment, and class curricula that are designed to cover topics that extend across the diverse areas of nursing knowledge (Waterkemper and Prado, 2011). These innovative lesson plans that create a new teaching/learning context contribute to the educational goals for nursing in Brazil and in the international context regarding nursing education. Historically, in a traditional teaching model, the teacher and student are instructed to construct specific and distinct roles, i.e., the teacher teaches, and the student learns (Freire, 2011e, 2011f; Gadotti, 1995).

The aim of the present study was to identify how teaching Foundation for Professional Care courses within the context of a critical pedagogy curriculum contributes to the development of a critical attitude in the student.

## Methods

This study is a qualitative case study as defined by Ludke and André (1986). This case consists of the experience of students in Foundations for Professional Care courses in the Graduate Nursing Programme at a Federal University in the south of Brazil, which has developed its teaching methods based on the critical pedagogy of Paulo Freire since 2005 (Freire, 2005). This course implements these principles using the Maguerez Arch<sup>4</sup> (Bordenave and Pereira, 2010) and active teaching and learning methods. To implement this curriculum, the courses are organised throughout the semester into three knowledge units that are designed to cover the theoretical learning of the course. This knowledge unit is developed through activities, such as small group discussions, experiences in a care setting, socialisation, independent study, simulation exercises for clinical laboratory skill development and the built of a portfolio to learning registration process. Fourteen students enrolled in this course participated in this study. The sample was assembled by a progressive sample selection process (Minayo, 2010) of students who were found during field observations to be more communicative in the observed environments as they are the best informants;

<sup>4</sup> The Maguerez Arch is a pedagogical technique proposed by Bordenave and Pereira (2010) that suggests to develop the knowledge of students from identified problems in reality. Such a method is developed in five steps: observation of reality, identifying key points, teorization, possible solutions and application of reality.

these students were enrolled in the course and agreed to participate voluntarily. Students who did not speak much or not at all during the observation were excluded. The triangulation of non-participant observation, interview scripts and document analysis (portfolios) was used to collect the data. The amount of data collected was limited using the data saturation criterion. The analysis was performed based on the content analysis steps outlined by Minayo and was organised in three major phases: pre-analysis, exploration of the material and result processing (Minayo, 2010), based on the thoughts of Paulo Freire on critical and liberating education. This study was reviewed by the Research Ethics Committee and approved under process number 474 and protocol number 305209 on November 30, 2009. To maintain the anonymity of the participants, they were identified by the letter A (aluno, Portuguese for student) followed by a sequential number.

## Results and Discussion

The development of a critical attitude created the following three thematic units: feeling free – seeking the liberty to learn to admire, admiring by curiosity and reflecting about the admired object.

### *Feeling Free – Seeking the Liberty to Learn to Admire*

In an educational programme that seeks to develop the students' critical attitude, one cannot work in an inflexible and oppressive environment as the criticality of a student is developed when he or she is free to be himself or herself, to see himself or herself as an incomplete being and to learn from his or her own *raison d'être*, i.e., his or her own reason for being (Freire, 2001). This liberty, as observed by the student, can be found in their reports and in their entries in their portfolio when they say that they feel at ease or are free to express themselves in class. The liberty can also be observed in their choices in how they seek out information and study.

“[...] The discussion itself is [...] good because [...] we discussed what basically everyone had researched independently, [...] so, if everyone had researched something, a student or another student [...] had information that I did not have, and it complemented our knowledge. This in itself builds knowledge, and thus in small groups, [...] we were all able to share what we had researched and [...] what our questions were; [...] if we were in a large group, then a lot of information could be missed, and if the person remained quiet without saying what they had learned, then they went unnoticed [...]”

“[...] After a lot of research, I decided to look for a scientific article that had a broader vision of care, instead of simply reporting some patient care technique, and I decided to read the article.”

In these portfolio selections, one can see that the students understand that they have the freedom to act in their learning environment and that the teacher facilitates this process. Since 1980, nursing education internationally has been strongly influenced by theories that support the need to stimulate the student's autonomy in their education (Darbyshire and Fleming, 2008; Ponto, 2011). This fact is confirmed by the changes in Political Pedagogical Projects (PPP) at universities, which are promoted by educational legislation. The main guiding principle underlying these projects is to change the roles of the teacher and student during the teaching/learning process. Distancing themselves from the traditional teaching model built on the precepts of the linearity of positivist, Cartesian, mechanical and technical rationality, the professor takes on the role of a facilitator, and the student becomes the one responsible for their learning (Darbyshire and Fleming, 2008; Pires et al., 2009), but they are given a space for freedom of action.

Authoritarian teaching conflicts with the ideas of emancipation and autonomy that permeate the current educational discussion (Darbyshire

and Fleming, 2008). Therefore, teaching the autonomy, decision-making (Baumberger-Henry, 2005) and conscientisation of the student (Ponto, 2011; Pires et al., 2009) need to be allowed from within flexible teaching environments that are free of authoritarianism.

"[...] When it was time to do exercises, the teacher helped me A LOT as I sat by her and little by little figured out what was being asked. She helped the others when they asked, but I felt comfortable asking her for help, and I saw that she didn't judge me and was always available."

Freedom is the most important characteristic for practising critical education. Achieving the full effectiveness and efficacy of this practice can only be accomplished if the free and critical participation of the students is allowed.

Pedagogical programmes based on the practice of student freedom during teaching and learning process allow them to independently access information to guide the objectivity of this process, especially through critique and problem-solving (Parker and Myrick, 2009). They represent one of the essential principles for constructing an innovative teaching model and replace the authoritarian school with an environment that creates critical subjects. The role of the teacher is to be a facilitator of learning, and he or she builds a relationship that is based on dialogue and respect for freedom. Their major activity involves "[...] teaching to think correctly [...]" and never leaving the student "[...] settled or inactive" and objectified. Without having their *raison d'être*, i.e., their reason for being, to be allowed to discuss, to be in and with the world, the student doesn't exercise their ability to be creative and curious (Freire, 2011g).

#### *Admiring by Curiosity*

The teacher and the teaching and learning environment must allow students to exercise their curiosity facing reality without repression or control of their freedom to act (Ponto, 2011) by their teacher. When students are conscious of their freedom, they become curious and are able to see and uncover the reality, both individually and collectively, on their own initiative.

"[...] I didn't like the discussions at the beginning. Additionally, it was the first time I did it! We had to bring in the entire theoretical base, and it seemed like we didn't learn anything; [...] we arrived just as we left, the same way that we came in. [...] It appeared that the only things that we learned were what we studied. [...] However, we discussed what each one had learned, the teacher told us what they knew and their experiences with [...] the questions we had on what we had researched at home. [...] Most of the time, they used activities, but to relax [...], so that we would begin to loosen up and talk. [...] It helped [...] that there were fun activities, and they always related these activities to the material we would have, there was never an irrelevant activity. [...] I am not participating a lot; I still don't talk."

"[...] He had sores in his mouth that were bothering him greatly. He began to spit to try to remove them. However, nothing came out. There was some gauze left over from when the nasogastric tube had been placed. I had the idea to moisten them and rub lightly and smoothly on the upper lip of the patient to remove them. What a great idea! I was able to remove all of them, and I also cleaned the upper and lower lips of the patient, which were very dirty. I also applied Miconazol cream to the patient's lesions."

In these quotes, we see that the students use their curiosity to observe the world in which they are learning, revealing their own attitudes. Curiosity can be considered to be a teaching strategy and can be used to help the students see the world with their own eyes and become questioning subjects by exercising their freedom. Curiosity is fed as it is exposed to the world through the students' ability to learn for

themselves. By considering and distancing themselves from the observed world, the students learn to find solutions for problems by reflection, which permits creativity (Silva and Camillo, 2007). The students' reports reveal moments where they exercised their curiosity in two different learning environments: small group discussions in a classroom and role-playing in the training field. Independent of the environment, curiosity develops in response to the things that the student experiences and is challenged with, be it in a discussion on real topics or in practising the care that they have learned.

As the student's curiosity is exercised by the teacher action, either in a classroom or in other learning environments, such as the training areas and practical labs, it ceases to be simply a powerless, naïve curiosity and becomes an epistemological, critical curiosity. The epistemological curiosity is one that seeks to understand the reality of a systematic, relationships and explanations for intervening in situations of nursing care. Thus, this curiosity causes the student to approach reality, the considered object, in a more rigorous and methodical way. To the extent that the students make this change, they exercise their capacity to reflect and to critique to find solutions in light of what is being considered. Therefore, curiosity can be taken as a continual process that may evolve into a critical curiosity. Therefore, during the teaching/learning process, curiosity becomes the source of correct thinking, i.e., critical reflection (Freire, 2011h).

#### *Reflecting About the Admired Object*

In modern nursing, it was observed that the philosophical tendency in graduate nursing education involves behaviourism and constructivism, both in the classroom and in the clinical simulation environment. These pedagogical philosophy influences seek to cultivate a teaching/learning environment that is able to develop the student's critical thinking through their own efforts (Parker and Myrick, 2009). In the present study, the process of reflection occurs in the student at the moment that they, through their freedom and curiosity, consider the object. Their reality results from the evolution of their consciousness of self and the world to a consciousness of self in the world. From the moment that the students understand this reality, they can identify hypotheses for the challenges that reality presents and create solutions to solve them. By creating solutions, the student can apply them, transforming the problem-posing reality (Freire, 2011a, 2011h, 2011i). The act of forming a problem is a process of reflection in action. When faced with the observed reality, the students distance themselves from it and, by looking at it from a detached point of view, reflect to find solutions (Lindah et al., 2009).

"[...] We witnessed the process of dying; [...] I started thinking a lot [...] on the class that we had. [...] The relationship between that healthcare professional with the body lying there on the bed, [...] the way that the body is treated not only there but also with relatives [...] that were present. There was a lack of comfort for those relatives, as there was no psychologist or social worker. [...] That moment was a time when the nurse should have acted [...] more than they did. Even if they were behaving calmly without making a big deal, but anyone who loses a family member becomes distraught. [...] This is one of my reflections [...]."

"[...] The class today went well. There was a lot of information shared from what the students had read and from the teachers. I think that Infectious Disease Control and Biosafety are very important topics for nurses, and clearly other health professionals as well, but I say the nurse because out of the entire team of health care professionals responsible for the patient's care, it is the nurse who will be in direct contact with the patient."

"[...] In this observed scene in the simulated laboratory (measuring blood pressure) the teacher walk around the room explaining to the



students and ask then: “how do you do it?”. In this moment of “to be questioned” the students remain quiet. The teacher continues the explanation and talk about the auscultatory gap or hole. She tried to question the students animatedly. During this process four students take note of the informations given by the teacher. The teacher continues and dug deeper the explanation and ask the students the reason of verify the blood pressure. No one answer. Next, the teachers demonstrate the technique of blood pressure verification. The students pay attention. Then, the teacher ask the class, “what did you think?”. The students comment about the noise, the patient’s concerns, the need for concern about the care patient’s psychological issue and professional confidentiality.”

The situations highlighted from the interviews, portfolio and field observations show that the students successfully reflected as they experienced these situations during practice sessions, small group discussions and laboratory exercises. However, in the context of the problem that was identified, observed and reflected on, the students did not mention their relationship with this reality as future professionals. This reflection is a naïve one, albeit an exercise in criticality. To be a critical reflection, the student would need to see himself or herself in the world, be conscious of himself or herself in the world and become an agent of change. Critical reflection is an intrinsic characteristic of man and thus must be stimulated (Freire, 2001). Teaching nursing within this paradigm allows the student to meet his or her own learning needs (Parker and Myrick, 2009). At fundamental nursing care course, one of the strategies used to achieve this stimulus is independent study.

“[...] During independent study, I surpassed my expectations reading an article from journal A titled “Injury Evaluation by Nurses in Public Hospitals”, which was published in 2008. After reading the article, I read textbooks to help me understand the theoretical basis of the topic. I began researching the book [...]. Later in the chapter, I read about bandages and wraps, how they should be applied, why to use them and what types are used most often. During the last independent study session of the first knowledge unit, I reviewed the other topics and saw that I needed to reread everything again with a little more attention. In addition, as I researched an article, I saw that I need to widen my research sources as I saw that, in addition to the theoretical foundation, it is important that I also read studies and other approaches to the topic to better understand how it fits into our professional reality.”

In this portfolio report, the students see themselves as students and recognise their responsibility for professional development by seeking knowledge regarding injury evaluation. Through study, the student observes that to understand the topic they needed to seek sources of information to deepen their knowledge. The student’s reflection is in itself performed by a student. Analysing his reflection process and previous notes, the student assumed that he was incomplete, and this problem could be solved by seeking out other sources. This is a critical reflection that emerges from the consciousness of oneself in the world of learning. The object of consideration in this case is the attitude of the student. This same critical reflection process can be observed in this student in the small group discussion reported in his portfolio and in the field observation.

“[...] We were able to identify microorganisms by sight; [...] we saw how at times we did not worry about the small things, but the large or overtly dangerous things. [...] At the end of this class, I remembered my Microbiology classes and how we aren’t careful with what we cannot see. I then re-evaluated my personal care habits, such as washing my hands after riding the bus or when I get home or to keep my lab coat separate from other class materials, put it on when I am at the hospital’s doorway and take it off at the same place. The only thing that bothered me in this class was to know that we are the ones most responsible for transmitting hospital infections

(cross-infection) and that after a time in the profession, many employees begin to not worry much about biosafety precautions.”

“Teacher: “A1, what did you learn?” A1: talks about an article that he read about the role of the nurse and emphasises that the main factor in limiting biosafety concerns is hand washing, as hands are the main source of contamination.”

During this critical reflection, the object or reality considered by the students is biosafety. The act of considering means to penetrate what is being considered, i.e., to look inside. This aspect of the reflection process allows the student to look deep inside something that they are guided to see. When they are able to understand themselves by looking at this reality that appeared impossible, they are able to objectify it and discover, through their creativity, the potential to change themselves and the reality that they see (Freire, 2011i).

## Conclusions

The students in this case showed that they were free to make decisions concerning their education. Free choice allows the students to exercise their curiosity to observe the studied and experienced reality. It is from this observation of real experiences that the student is able to reflect and seek solutions to be applied to the reality analysed. However, developing an attitude of free choice without waiting for a teacher is a challenge, albeit one that can be overcome.

Performing studies that involve educational philosophy, theory and pedagogy are necessary to assure that nursing professors can fully realise the students’ developmental potential for practising modern nursing (Parker and Myrick, 2009). Institutions of higher learning, represented by professors, which seek to create students who have a critical attitude cannot hope that they will come up with the solutions themselves, but they should find and create pedagogical plans to make their teaching and learning a challenging, creative and transforming activity. There are few schools that have made this change. Change is essential and urgent! It is only possible if through effort. To develop students with critical attitudes, it is essential that schools create conditions that foster criticality. Given that the students are being trained, they cannot change their attitudes alone; they need guidance from their professors. However, because pedagogy is responsible for this process, one can only create the conditions necessary for criticality if one shares the need for change.

Nonetheless, for a student’s critical reflection, arising from a critical pedagogy, to occur, it is essential that the teaching/learning area allows them their *raison d’être*, or reason for being, that is, to allow the students the freedom to express themselves and to attain knowledge. Feeling free, students can exercise their curiosity when faced with new situations in the studied topics that challenge them to make decisions based on their conscientisation in the world.

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